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transformation projects

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Petition of Virginia Electric and Power Company, For approval of a plan for electric distribution grid transformation projects pursuant to § 56-585.1 A 6 of the Code of Virginia, and for approval of an addition to the terms and conditions applicable to electric service

Case No. PUR-2019-00154

Dear Mr. Peck:

Please find enclosed for electronic filing in the above-referenced matter the *Petition for Reconsideration and Clarification of Virginia Electric and Power Company*.

Please do not hesitate to contact me if you have any questions in regard to this filing.

Highest regards,

/s/ Vishwa B. Link

Vishwa B. Link

enc.

cc: The Honorable Mary Beth Adams, Hearing Examiner

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COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

PETITION OF)	
VIRGINIA ELECTRIC AND POWER COMPANY)	Case No. PUR-2019-00154
For approval of a plan for electric distribution grid transformation projects pursuant to § 56-585.1 A 6)	
of the Code of Virginia, and for approval of an addition to the terms and conditions applicable to electric service)	
PETITION FOR RECONSIDERATION A	ND C	T ARIFICATION
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TABLE OF CONTENTS

REQUEST FOR RECONSIDERATION	3
I. AMI	3
A. The record shows that the Company presented a concrete, definitive plan to implement system-wide advanced rate options that leverage AMI to all customers, including a TOU rate.	4
B. The record shows that there are significant benefits to AMI in addition to system-wide TOU rates. Staff supported these other benefits	. 11
C. The finding that the Company did not present a plan to maximize the potential for AMI relies on evidence from a prior proceeding, and is contrary to the evidence this record.	in
D. The denial of AMI is contrary to the legislative goals and mandates set by the General Assembly in 2018, 2019, and 2020.	
II. Self-Healing Grid	. 20
A. The proposed self-healing grid investment targets customers with below avera	
B. The investments proposed during Phase IB will allow the Company to prove to value of a self-healing, digital grid for reliability, for hosting capacity, and for integrated distribution planning	
C. The denial of the self-healing, digital grid is contrary to legislative goals and mandates.	. 25
III. Proactive Service Transformer Replacements	. 27
REQUEST FOR CLARIFICATION	. 28
I. AMI: Footnote 20	. 28
II. Smart Charging Infrastructure Pilot Program: Promotional Allowance Rules	. 31
CONCLUSION	. 33

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PETITION FOR RECONSIDERATION AND CLARIFICATION OF VIRGINIA ELECTRIC AND POWER COMPANY

In this proceeding, Virginia Electric and Power Company ("Dominion Energy Virginia" or the "Company") presented a comprehensive plan to transform its electric distribution grid to facilitate the integration of distributed energy resources ("DERs") and to enhance grid reliability and security ("Grid Transformation Plan" or "GT Plan"). In its Final Order dated March 26, 2020 (the "Final Order"), the State Corporation Commission of Virginia (the "Commission") approved components of Phase IB of the GT Plan covering the years 2019, 2020, and 2021, but denied other components. Specifically, the Commission denied two proposed investments foundational to a transformed grid as not reasonable and prudent based on the record in this proceeding: (i) advanced metering infrastructure ("AMI") and (ii) the self-healing grid. The Commission also denied investment in (iii) the proactive upgrades of service transformers because that investment depended on AMI.

Dominion Energy Virginia petitions the Commission for reconsideration of the Final

Order as it relates to AMI and the self-healing grid pursuant to Rule 220 of the Commission's

Rules of Practice and Procedure. The justification for denying AMI and the self-healing grid as

¹ 5 VAC 5-20-220.

not reasonable and prudent is contrary to the evidence in the record. Indeed, the record contains ample evidence supporting the prudence of investments in AMI and the self-healing grid. Finally, the denial of AMI and the self-healing grid is contrary to the legislative goals and mandates set forth in the Grid Transformation and Security Act of 2018 (the "GTSA") and Senate Bill 1769 from the 2019 Regular Session ("SB 1769"), as well as guidance from the recently-enacted Virginia Clean Economy Act (the "VCEA").

The Company also petitions for reconsideration of the proposed proactive replacement of service transformers should the Commission grant reconsideration of its decision on AMI.

Investments in the proactive replacement on service transformers based on data received from AMI will enable the Company to maximize the benefit of AMI.²

In addition, Dominion Energy Virginia petitions for reconsideration to request clarification of footnote 20 in the Final Order ("Footnote 20"). In Footnote 20, the Commission questioned when and whether the Company could propose a system-wide time-of-use ("TOU") rate. Footnote 20 seems to suggest that the Company could only seek approval of a system-wide TOU rate as part of a "full base rate case" or as part of a triennial review if the proposal was revenue neutral. The Company seeks clarity on this interpretation of the Va. Code.

Finally, the Company petitions for reconsideration to request limited clarification that the Smart Charging Infrastructure Pilot Program (the "Pilot Program") approved in the Final Order satisfies the Commission's Promotional Allowance Rules.

² The Company does not seek reconsideration of the other components of the GT Plan that the Commission denied in this proceeding, including advanced analytics, an enterprise asset management system, and proactive substation transformer replacement.

REQUEST FOR RECONSIDERATION

Dominion Energy Virginia petitions the Commission for reconsideration of the Final Order as it relates to (i) AMI; (ii) the self-healing grid and related telecommunications investments; and (iii) the proactive replacement of service transformers.

I. AMI

The Commission denied the proposed Phase IB investment in AMI as not reasonable and prudent in this proceeding based on its conclusion "that the Company has simply not provided a concrete, definitive plan to implement TOU rates on a system-wide basis and bring the benefits of full AMI deployment to customers in a timely manner." Accordingly, the Commission found that "the Petition contains an insufficient plan to maximize the potential of AMI, and that the substantial cost to customers of AMI is not reasonable and prudent based on the record established herein." Respectfully, this decision is contrary to the evidence in the record. This decision is also contrary to the legislative goals and mandates set by the Virginia General Assembly in passing the GTSA and other statutes. The Company thus respectfully requests that the Commission reconsider its decision.⁵

³ Final Order at 9.

⁴ Final Order at 9.

⁵ If the Commission reconsiders its decision and approves the deployment of AMI as reasonable and prudent, the Company asks that the Commission also approve the proposed opt-out fees as outlined in the rebuttal testimony of Company Witness Nathan J. Frost. Ex. 34 at 20:2-3 (Frost Rebuttal).

A. The record shows that the Company presented a concrete, definitive plan to implement system-wide advanced rate options that leverage AMI to all customers, including a TOU rate.

The Commission denied the proposed investment in AMI as not reasonable and prudent in this proceeding because the Company purportedly did not provide "a concrete, definitive plan to implement TOU rates on a system-wide basis." The Commission also found that the Company "failed to submit a comprehensive proposal to roll out TOU rate design across its entire territory and make such rates available to all of its customers." These findings of fact are not supported by the record evidence.

While the Company currently offers TOU rates to all residential customers across its service territory,⁸ the record in this proceeding contains the Company's commitment to execute on its well-defined, multi-stage plan to offer additional advanced rate options—including additional TOU rates, peak time rebates, and prepay—to all customers across the Company's service territory that leverage both AMI and the customer information platform ("CIP").⁹ Effective and timely implementation of these additional advanced rate options for all customers requires both AMI and the CIP, which is why the Company proposed to deploy these

with Commission approval.").

⁶ Final Order at 9.

⁷ Final Order at 8.

⁸ See Rate Schedule 1S or 1T, available at https://www.dominionenergy.com/library/domcom/media/home-and-small-business/rates-and-regulation/residential-business-rates-shared/virginia/entire-filed-tariff.pdf?la=en. The Commission has held that it can take judicial notice of utility tariffs on file with the Commission. Application of Anderson Propane Service, Inc., For authority to provide non-utility gas service pursuant to the Utility Facilities Act, Va. Code §§ 56-265.1 to 56-265.9, Case No. PUE-2009-00113, Order Granting Authority at 16 (Apr. 1, 2010). The Company seeks to improve upon these existing offerings by leveraging the capabilities of AMI and the CIP.

9 See, e.g., Ex. 3 at 11:6-8 (Baine Direct) ("The comprehensive GT Plan proposed herein . . . represents the Company's commitment to execute the proposed components and future programs

components in the same timeframe prior to the implementation of the advanced rate options.¹⁰ Contrary to the findings of the Final Order, the record contains evidence of both the genesis of this plan for advanced rate options and the Company's proposed path forward.

As the Commission recognized in the Final Order, the Company's plan to leverage AMI for time-varying rates began about ten years ago in connection with its initial deployment of AMI in three locations. Specifically, the Commission approved a TOU pilot that sought to leverage AMI deployed in Charlottesville, Midlothian, and Northern Virginia (the "TOU Pilot Rate"). Company Witness Gregory J. Morgan explained some of the lessons learned from the TOU Pilot Rate. For example, the Company "learned that the summer on-peak period was too long, it was six hours long. And we learned that customers that do try to react maybe would react, but by the time hour three or four came along, then perhaps it was actually a negative, that there was a rebound effect."

In December 2019, the Company proposed an experimental rate that would be available to residential customers where AMI has been installed ("TOU Schedule 1G"), which is pending in Case No. PUR-2019-00214.¹⁴ TOU Schedule 1G was developed through the legislatively-mandated TOU stakeholder process, ¹⁵ and incorporated the lessons learned from the TOU Pilot Rate, including a three-hour on-peak period.¹⁶ While the Company initially proposed a participation cap for TOU Schedule 1G of 10,000 customers based on the limitations of its

¹⁰ See, e.g., Tr. 192:19-25 (Hulsebosch).

¹¹ Final Order at 8 n.21.

¹² Final Order at 8 n.21.

¹³ Tr. 264:25-265:5 (Morgan).

¹⁴ Ex. 45 at 8:19-9:5 (Morgan Rebuttal).

¹⁵ See Ex. 12 at 9:10-13 (Morgan Direct).

¹⁶ Tr. 265:7-15 (Morgan).

existing customer information system ("CIS"),¹⁷ TOU Schedule 1G would be available to residential customers across the system where AMI has been deployed.¹⁸ The Company would also certainly consider petitioning the Commission to raise this cap based on customer interest and technical feasibility if participation was nearing the cap.¹⁹

The Company will use the customer behavioral data gained from TOU Schedule 1G to develop another system-wide TOU rate (i.e., in addition to Rate Schedules 1S and 1T) available to all customers that leverages AMI and the approved CIP:

[W]e're proposing to experiment with this structure on 10,000 customers with the full data support. We will have additional lessons learned from that. And maybe [TOU Schedule 1G] is perfectly designed... – maybe it needs to be tweaked. We will then come in with a final... that will be rolled out to everybody. So that 10,000 is the experiment to set up the final, and then we'll roll it out to everybody and market it across the system.²⁰

Company Witness Morgan also explained the benefit of deploying AMI before offering AMIenabled TOU rates on a system-wide basis—customer-specific data:

[T]here is a lot of research [from TOU rates across the country], but . . . the residential class is not remotely a [homogenous] class of customers. There are subsets within subsets of customers. So what impacts a customer one way may not impact another customer. In fact, there are literally dozens of subsets if you wanted to subcompartmentalize.

[T]hat goes to the point of we would like to have AMI rolled out so that [for] every customer we would have a year's worth of hourly

¹⁷ Tr. 281:13-16 (Morgan).

¹⁸ Ex. 12 at 9:18-19 (Morgan Direct).

¹⁹ See Application of Virginia Electric and Power Company, For approval to establish a renewable generation pilot program pursuant to § 56-234 of the Code of Virginia, Case No. PUE-2012-00142, Final Order at 19 (Dec. 16, 2013) ("[The Company], sua sponte, may make a request to expand the parameters of the [Renewable Generation Pilot] Program if or when appropriate.").

²⁰ Tr. 266:12-23 (Morgan).

data available, so that we could then tell a customer this is what you can expect based on your loads.²¹

Indeed, Appalachian Voices Witness Kevin O'Donnell seemed to acknowledge the need for AMI before a new additional system-wide TOU rate could be offered: "[I]t would be logical to assume that the time-varying rates cannot start until the AMI project is completed."²²

As explicitly stated throughout the record, the Company is committed to implementing TOU rates that leverage AMI on a system-wide basis.²³ The Company has thus set forth and committed to a concrete, definitive plan to implement TOU rates on a system-wide basis to bring the benefits of full AMI deployment to all customers in a thoughtful, effective, and timely manner.

Overall, Company Witness Morgan explained how the Company's plan for system-wide deployment of TOU rates that leverage AMI will result in a well-managed, effective program:

And I think that's going to be a well-managed program. We can come in here and we will then have a design, we can have expectations, and we will march forward with it across the system in a measured and sensible way rather than rolling out a program that maybe [is] not tuned as well as we want it to be.²⁴

No expert witnesses in the proceeding challenged these assertions.

²¹ Tr. 268:1-15 (Morgan). Company Witness Morgan did not assert that TOU Schedule 1G "is a prerequisite to system-wide TOU rates," as stated in the Final Order. Final Order at 9. Rather, Mr. Morgan sought to explain how offering TOU Schedule 1G prior to deployment of the additional system-wide TOU rate that leverages AMI and the CIP would result in a better rate design.

²² Ex. 18 at 20:22-23 (O'Donnell).

²³ See Tr. 266:17-20 (Morgan: "We will then come in with a final . . . that will be rolled out to everybody."); Tr. 266:22-23 (Morgan: "[W]e'll roll it out to everybody and market it across the system"); Tr. 268:19-20 (Morgan: "[W]e will march forward with it across the system."); Tr. 567:14-15 (Hulsebosch: "[A]fter the deployment of the AMI and the CIP . . . [the Company] would then move into the full system deployment of the TOU."); Tr. 617:1-2 (Frost: "[W]e're absolutely committed").

²⁴ Tr. 269:16-22 (Morgan).

Complementary to a system-wide TOU rate that leverages AMI, the Company also plans to implement a peak-time rebate ("PTR") program as another rate mechanism to bring the benefits of AMI to all customers. As explained by Company Witness Nathan J. Frost, PTR is a customer program designed to reduce the Company's coincident peak period.²⁵ The Company would call a certain number of PTR events per year, each lasting for a certain number of hours.²⁶ Once called, enrolled customers would receive a notification of the opportunity to reduce usage, and would earn a rebate if they reduce usage during the PTR event.²⁷ Offering PTR is another important part of the Company's plan to offer system-wide advanced rate options that leverage AMI and the recently-approved CIP:

To clarify, . . . you could say the PTR program is another form of a time-varying rate, and we expect an equal number of customers on that as well. So the combination of the time-varying rate and the PTR program we think is about double [the] volumes [for enrollment estimated in the cost-benefit analysis].²⁸

In addition to TOU rates and PTR, the Company plans to leverage AMI and the CIP to offer a prepay program. As explained by Company Witness Frost, prepay is a program that allows customers to make an up-front payment of their energy bill that will then be reduced over time based on the customers' ongoing usage.²⁹ Customers would receive alerts as their balance is depleted, providing them the information to take action accordingly.³⁰ In other words, prepay allows customers to manage their energy usage within their budget. In the industry, prepay programs have been shown to result in energy savings.³¹

²⁵ Ex. 7 at 24:19-20 (Frost Direct).

²⁶ *Id.* at 24:20-21.

²⁷ Id. at 24:22-25:1.

²⁸ Tr. 279:18-24 (Morgan); see Tr. 714:13-23 (Morgan).

²⁹ Ex. 7 at 23:22-24:2 (Frost Direct).

³⁰ *Id.* at 24:2-3.

³¹ *Id.* at 24:4-5.

Providing further support of the Company's commitment to advanced rate options, the cost-benefit analysis completed by West Monroe Partners, LLC ("West Monroe") reflects the Company's concrete plans for system-wide deployment of advanced rate options that leverage AMI. Exhibit 31 summarized the modeling assumption related to advanced rate options based on the Company's plans. Exhibit 31 is included with this petition for reconsideration as <a href="https://doi.org/10.1007/journal.o

As shown on Exhibit 31, West Monroe modeled an experimental TOU rate—TOU

Schedule 1G—from 2020 to 2024, followed by an expanded TOU rate by 2025 upon completion
of AMI and CIP deployment.³² This is consistent with Company Witness Morgan's testimony
supporting a potential filing in the 2024 triennial review for approval of a system-wide TOU
rate,³³ if not sooner. Company Witness Thomas G. Hulsebosch confirmed that the model
assumed a system-wide TOU rate that leverages AMI:

COMMISSIONER CHRISTIE: So your cost-benefit analysis assumed a full-system rollout of time-of-use rates?

THE WITNESS: That's correct. Your Honor.34

In addition to the expanded TOU rate, West Monroe modeled PTR beginning in 2026 after completion of AMI and CIP deployment.³⁵ Both of these advanced rate options would result in

³² Ex. 31. As Company Witness Hulsebosch explained at the hearing, the assumption of 5,000 customers for the experimental TOU rate in the cost-benefit analysis was a conservative assumption; remodeling the experimental TOU rate for 10,000 would have resulted in additional benefits. Tr. 566:20-11 (Hulsebosch).

³³ Tr. 280:21-281:9 (Morgan).

³⁴ Tr. 175:13-16 (Hulsebosch); see also Tr. 192:19-25 (Hulsebosch: "In order to do the full time-varying rate rollout, . . . we need the customer information system, we need the AMI, and then we need the time-varying rates. And at that point, all customers have access to time-varying rates." (emphasis added)).

³⁵ Ex. 31.

significant benefits in the form of both reducing and shifting energy and demand.³⁶ Additionally, West Monroe modeled a prepay program beginning in 2026, which would result in significant energy savings.³⁷ Importantly, as explained by Company Witness Hulsebosch, these are likely conservative assumptions of the benefits of these advanced rate options.³⁸

In sum, the Company has system-wide TOU rates available today, and also has a concrete, definitive plan to implement a modern-day system-wide TOU rate and other advanced rate options that leverage AMI and the CIP. As stated by Company Witness Edward H. Baine—Senior Vice President of Power Delivery for Dominion Energy, Inc.—the Company is fully supportive of and committed to offering system-wide advanced rate options that leverage the benefits of AMI, but cannot implement these system-wide options without AMI.³⁹ Denying the prudence of investment in AMI in this proceeding for lack of "a concrete, definitive plan to implement TOU rates on a system-wide basis" is thus contrary to the record, and should be reconsidered. In the alternative, the Company respectfully requests clarification from the Commission on what elements of a "concrete, definitive plan to implement TOU rates on a system-wide basis" are missing from the Company's plan as presented in this record.

³⁶ Ex. 31.

³⁷ Ex. 31; see Tr. 593:3-594:9 (Hulsebosch: "[W]hen people have the information on how much energy they are consuming and what their bill is, they tend to be a little more conservative.").

³⁸ See Tr. 182:1-6 (Hulsebosch): Tr. 193:15-17 (Hulsebosch); Tr. 610:17-20 (Hulsebosch).

³⁹ Ex. 28 at 10:4-13 (Baine Rebuttal)(emphasis added); see Ex. 34 at 3:6-11 (Frost Rebuttal).

B. The record shows that there are significant benefits to AMI in addition to system-wide TOU rates. Staff supported these other benefits.

The Commission focused on TOU rates in denying AMI, referring to TOU rates as "hold[ing] the promise of being an extremely effective—if not the most effective—mechanism for energy efficiency and demand response." According to the Final Order, "without TOU rates, one of the most significant benefits of AMI is lost to customers."

As an initial matter, the statement in the Final Order that TOU rates "hold[] the promise of being an extremely effective—if not the most effective—mechanism for energy efficiency and demand response" is without evidentiary basis in the record. While the Company certainly agrees that TOU rates can result in energy and demand savings⁴²—and thus modeled those savings in the cost-benefit analysis⁴³—it did not argue that TOU rates are the "most effective" mechanism for energy efficiency or demand response. Further, neither Commission Staff ("Staff") nor respondents evaluated the effectiveness of TOU rates for energy efficiency or demand response—let alone provided evidence that TOU rates were comparatively the "most effective" mechanism. Relying on facts not in the record as a basis for denying AMI is improper and should be reconsidered.

Moreover, the finding that "one of the most significant benefits of AMI is lost to customers" without TOU rates is contrary to the evidence in the record. In addition to enabling TOU rates, the record shows a plethora of significant benefits for customers related to AMI:

- Reports outages and restorations, improving overall outage management and leading to faster overall restoration time:
- Reduces operations and maintenance expenses;
- Supports enhanced demand-side management ("DSM") programs, such as PTR;
- Enhances evaluation, measurement, and verification ("EM&V") for DSM programs;

⁴⁰ Final Order at 7.

⁴¹ Final Order at 8.

⁴² See Ex. 12 at 9:20-10:7 (Morgan Direct).

⁴³ Ex. 29 at Rebuttal Schedule 6 (Hulsebosch Rebuttal).

- Enables alternative billing, such as prepay;
- Enables high usage alerts and high bill alerts;
- Enables advanced distribution system planning functions, such as dynamic hosting capacity analysis and integrated distribution planning;
- Detects distribution equipment issues proactively;
- Supports circuit automation and dynamic circuit reconfiguration;
- Reduces energy diversion;
- Enhances load forecasting;
- Enhances cost of service studies;
- Reduces greenhouse gas emissions; and
- Improves the customer experience.⁴⁴

Indeed, four of the top ten priorities identified by customers in a recent survey focused on decreasing the length of outages and increasing the level of information provided by the Company to customers during outages. AMI, when paired with the CIP and future investment in a new outage management system, will enable the Company to meet these customer priorities. Accordingly, while AMI certainly does enable more advanced TOU rates, the record reflects that this capability is just one of the many significant benefits of AMI for customers.

Indeed, Staff Witness Curt Volkmann testified that "[t]here are many benefits from AMI that support advanced distribution planning capabilities, including voltage monitoring and more granular load forecasting." Mr. Volkmann stated his support for these other benefits, and for

⁴⁴ See Ex. 7 at 16:6-25:12 (Frost Direct); Ex. 29 at Rebuttal Schedule 6 (Hulsebosch Rebuttal); Ex. 34 at 9:1-11:18 (Frost Rebuttal); Ex. 38 at 19:19-22 (Wright Rebuttal); Ex. 46 at 9:3-11 (Romero Aguero Rebuttal); Tr. 613:13-614:15 (Frost). The Company has demonstrated a number of these benefits within its existing AMI footprint. Ex. 7 at 17:21-18:6, 18:22-19:2, 19:9-11 (Frost Direct); Ex. 34 at 9:2-10:11 (Frost Rebuttal). The AMI-related costs presented in this proceeding will allow the Company to realize all of these benefits. Tr. 614:16-20 (Frost). ⁴⁵ Ex. 2, Plan Document at 29. Indeed, many of the written comments filed in this proceeding supported deployment of AMI, with the Virginia Department of Transportation specifically supporting AMI because of the benefits it provides for outage management. See Written Comments.

⁴⁶ See Ex. 38 at 19:19-20:5 (Wright Rebuttal).

⁴⁷ Tr. 414:16-20 (Volkmann).

AMI: "Those are all good things that come from AMI which is why I'm supportive." Mr. Volkmann reiterated his support for the Company's plan for integrated distribution planning: "I applaud what the Company intends to do in Phase IB when it comes to Integrated Distribution Planning and the development of an initial hosting capacity analysis, there's a lot of work associated with that, and I fully support it." The record shows that AMI is foundational to integrated distribution planning. 50

Dr. Julio Romero Aguero, a recognized subject matter expert with Quanta Technology, agreed with Staff Witness Volkmann, and summarized the benefits of AMI from an operational perspective:

AMI would provide Dominion Energy Virginia and its customers data at grid edge level (e.g., energy consumption, voltage levels, currents, etc.) and increase awareness and control over the distribution system. These capabilities are vital to: 1) enhance distribution system operations, 2) improve the efficiency of outage management and restoration processes, 3) enable advanced distribution systems planning functions (e.g., hosting capacity analyses, predictive reliability, etc.), 4) implement modern asset management practices (e.g., proactively evaluate, identify and respond to asset health issues), 5) apply descriptive, diagnostic and predictive analytics, 6) facilitate DER integration, 7) improve reliability and resiliency, and 8) and empower customers with detailed energy usage information that can be used to modify behavior and time-shift or reduce consumption.⁵¹

West Monroe quantified the benefits of AMI, presenting a view of its cost-benefit analysis focused only on AMI-enabled programs. This view included the costs and quantifiable benefits for AMI, voltage optimization, and a new outage management system, as well as TOU,

⁴⁸ Tr. 414:21-22 (Volkmann); see also Ex. 23 at 23:15 (Volkmann) ("I am generally supportive of the Company's proposed deployment of AMI.").

⁴⁹ Tr. 451:13-18 (Volkmann).

⁵⁰ Ex. 38 at 8, Rebuttal Figure 1 (Wright Rebuttal).

⁵¹ Ex. 46 at 9:1-11 (Romero Aguero Rebuttal).

PTR, and prepay.⁵² This cost-benefit analysis for AMI-enabled programs showed a positive benefit-cost ratio of 1.3 on a present value basis.⁵³

Company Witness Hulsebosch also summarized the AMI and AMI-enabled benefits from the cost-benefit analysis in his Rebuttal Schedule 6, including a description, the amount, and the associated basis and justification for each benefit projection.⁵⁴ Hulsebosch Rebuttal Schedule 6 is included with this petition for reconsideration as <u>Attachment 2</u> for ease of reference. As shown on Hulsebosch Rebuttal Schedule 6, the benefit of avoided energy and demand costs related to TOU rates that leverage AMI amounted to approximately \$18.2 million.⁵⁵ PTR amounted to an additional \$52.1 million in energy and demand savings.⁵⁶ As discussed above, these quantifiable benefits are based on conservative assumptions,⁵⁷ so additional energy and demand savings benefits could increase an already positive benefit-cost ratio.

While advanced rate options that leverage AMI provide significant benefits to customers, other significant quantifiable benefits result from deployment of AMI. For example, the energy and demand reductions from voltage optimization total approximately \$148.2 million.⁵⁸ In fact, a bread-and-butter benefit of AMI unrelated to advanced rate options—reduction in meter reading and servicing expense—totaled approximately \$161.1 million.⁵⁹ These expense reductions are quantifiable and significant benefits to customers.⁶⁰ Accordingly, while the

⁵² Ex. 29 at 23:8-12 (Hulsebosch Rebuttal).

⁵³ Id. at 24, Rebuttal Figure 5.

⁵⁴ *Id.* at Rebuttal Schedule 6.

⁵⁵ *Id*.

⁵⁶ *Id*.

⁵⁷ See supra note 38 and accompanying text.

Ex. 29 at Rebuttal Schedule 6 (Hulsebosch Rebuttal). See *infra* notes 80-82 and accompanying text for a description of voltage optimization.

⁶⁰ *Id.* at 20:7-3; *see also* Ex. 34 at 9:2-10:11 (Frost Rebuttal).

Company fully intends to offer TOU rates that leverage AMI, such rates are only one of the host of many benefits provided by AMI. The finding that "one of the most significant benefits of AMI is lost to customers" without TOU rates is thus contrary to the evidence in the record, and should be reconsidered.

C. The finding that the Company did not present a plan to maximize the potential for AMI relies on evidence from a prior proceeding, and is contrary to the evidence in this record.

In its Final Order, the Commission found that "once again . . . the Petition contains an insufficient plan to maximize the potential of AMI." The use of "once again" referred to the 2018 GT Plan proceeding in Case No. PUR-2018-00100. The Commission highlighted its reliance on Appalachian Voices Witness Caroline Golin in that proceeding, citing her testimony that AMI and related technologies are "beneficial and cost-effective *only to the extent* the Company utilizes them *to maximize* the potential gains of rate optionality, energy efficiency, demand response, and DERs." The Commission also noted that Appalachian Voices, Sierra Club, and the Office of the Attorney General's Division of Consumer Counsel ("Consumer Counsel") "all urged rejection of [the Company's] AMI proposal in that proceeding." The Commission's reliance on evidence from prior proceedings is prejudicial to the Company and is contrary to the Commission's finding in the 2018 GT Plan proceeding that its holding was "without prejudice." Further, the evidence from the prior proceeding is contrary to the record in *this* proceeding.

⁶¹ Final Order at 8.

⁶² Final Order at 6-7 (emphasis in original).

⁶³ Final Order at 7.

⁶⁴ Petition of Virginia Electric and Power Company, For approval of a plan for electric distribution grid transformation projects pursuant to § 56-585.1 A 6 of the Code of Virginia, Case No. PUR-2018-00100, Final Order at 10 (Jan. 17, 2019) [hereinafter "2018 Final Order"].

Appalachian Voices did not present the testimony of Caroline Golin in this proceeding; it presented the testimony of Kevin O'Donnell. In this proceeding, Mr. O'Donnell did not testify that the Company had failed to present a plan to maximize the potential of AMI. Mr. O'Donnell did not even testify that the Company *needed* "to maximize the potential gains of rate optionality, energy efficiency, demand response, and DERs" to make AMI cost beneficial. Instead, Mr. O'Donnell urged blanket rejection of Phase IB of the GT Plan based on how the Company and West Monroe presented the cost-benefit analysis.⁶⁵

In this proceeding, no witness testified that the Company had not presented a plan and commitment to maximize the potential of AMI. In his pre-filed testimony in this proceeding, Consumer Counsel Witness Scott Norwood only referred to TOU rates to comment about whether the Company complied with the 2018 Final Order.⁶⁶ At the hearing, Mr. Norwood conceded that the Company had complied with the 2018 Final Order by filing TOU Schedule 1G.⁶⁷ Similarly, Staff only referred to TOU rates in assessing whether the Company had complied with the 2018 Final Order.⁶⁸ Neither Staff nor respondents provided any substantive analysis of the benefits of TOU rates in this proceeding. Indeed, the Final Order cited Sierra Club and Consumer Counsel as urging rejection of AMI in a prior proceeding—but neither did so in *this* proceeding.⁶⁹

⁶⁵ See generally Ex. 18 (O'Donnell).

⁶⁶ Ex. 16 at 20:1-7 (Norwood).

⁶⁷ Tr. 314:15-315:18 (Norwood).

⁶⁸ See Ex. 25 at 7:18-8:3 (Essah). Staff generally agreed that the Company provided information required by the 2018 Final Order regarding detailed cost estimates, an AMI opt-out policy, an analysis of how AMI promotes DSM programs, and a transition plan including customer education. Ex. 27 at 16:2-14 (Myers); see Ex. 25 at 8:4-14:16 (Essah). No other respondents disputed whether the Company complied with the 2018 Final Order.

⁶⁹ See Consumer Counsel Post-Hearing Brief at Issues Matrix; Sierra Club Post-Hearing Brief at Appendix.

In sum, no expert witnesses in *this* proceeding questioned whether the Company had provided a plan to maximize the potential of AMI. To the contrary, industry expert Dr. Romero Aguero testified that the Company had proposed programs along with AMI that would ensure effective utilization, including an outage management system, advanced analytics, and TOU rates.⁷⁰ Denying the prudence of investment in AMI for lack of plan to "maximize the potential of AMI" is contrary to the record in *this* proceeding, and should be reconsidered.

D. The denial of AMI is contrary to the legislative goals and mandates set by the General Assembly in 2018, 2019, and 2020.

In addition to the reasons for reconsideration of the AMI decision based on the record in this proceeding, denying investment in AMI as not reasonable and prudent runs contrary to the legislation passed over three separate sessions of the Virginia General Assembly.

In 2018, with the passage of the GTSA, the Commonwealth declared electric distribution grid transformation projects to be in the public interest.⁷¹ The definition of "electric distribution grid transformation project" explicitly included "advanced metering infrastructure."⁷² The GTSA also mandated that utilities file a plan to facilitate the integration of DERs and enhance the reliability and security of the distribution grid. As discussed above, AMI does both.⁷³

In 2019, the General Assembly enacted Senate Bill 1769, which presupposed the deployment of AMI.⁷⁴ Enactment Clause 2 of SB 1769 required the Company to convene a stakeholder process to make recommendations about advanced rate options that take advantage of AMI:

[The Company] shall convene a stakeholder process to make recommendations to the utility concerning (i) the development of

⁷⁰ See Tr. 733:2-734:4 (Romero Aguero).

⁷¹ Va. Code § 56-585.1 A 6.

⁷² Va. Code § 56-576.

⁷³ See supra note 44 and accompanying text.

⁷⁴ 2019 Acts of Assembly ch. 763.

retail rate schedules designed to offer time-varying pricing that take advantage of advanced metering technology and related investments in customer information systems; (ii) the development of incentive programs for the installation of equipment to develop electric energy derived from sunlight for customers using advanced metering technology served under such time-varying rate schedules; (iii) the possible transition of net metering customers using advanced metering technology to the time-varying rate schedules; (iv) peak shaving programs; (v) the provision of on-site distributed renewable generation to multifamily dwellings; and (vi) related system effects and requirements arising from distributed generation resources. . . .

In developing recommendations for the possible transition of net metering customers to the time-varying rate schedules, the stakeholder group shall (i) recommend the timing and increases in the net-metering cap to take advantage of the deployment of advanced metering technology and the approval of time-varying rate schedules, in a range estimated to be between two percent and four percent, and (ii) recommend appropriate increases in customer class caps, aligned with potential system cap increases, and the timing of deployment of advanced metering technology, taking into consideration infrastructure costs and rate impacts of higher solar distributed generation capacity.⁷⁵

The Final Order recognized that Enactment Clauses 3 and 4 of SB 1769, "[a]mong other things," directed the Company to develop and submit TOU rates. Enactment Clauses 3 and 4 also recognized the need for AMI for such rates:

- 3. That on or before March 1, 2020, [the Company] shall develop and submit to the State Corporation Commission for approval retail rate schedules designed to offer time-varying pricing, including at least one non-demand rate schedule. Customer-generators or agricultural customer-generators participating in net metering may elect to be served under such time-varying rate schedule at such time as the customer-generator or agricultural customer-generator is served by advanced-metering technology equipment satisfactory to the utility.
- 4. That on or before March 1, 2020, a Phase II Utility, as such term is defined in subdivision A 1 of § 56-585.1 of the Code of Virginia, shall develop and submit to the State Corporation Commission for approval an incentive program for the installation of equipment to

⁷⁵ 2019 Acts of Assembly ch. 763, Enactment Clause 2 (emphasis added).

develop electric energy derived from sunlight for customers served under time-varying retail rate schedules that have advanced-metering technology equipment satisfactory to the utility.⁷⁶

In 2020, the General Assembly enacted the Virginia Clean Economy Act, which among other thing establishes bold targets for energy efficiency. Although not yet effective as law, the VCEA amends Va. Code § 56-596.2 to require energy efficiency programs to achieve annual targets that reach 5% by 2025, using a 2019 baseline. As explained by Company Witness Frost, AMI will enhance existing DSM programs by providing the energy usage data that will enable more targeted suggestions to customers for measures to optimize customers' energy savings. Further, AMI enables voltage optimization, which uses near real-time voltage data from smart meters and issues control commands to voltage control devices to manage grid voltage more precisely. These more precise settings result in generally lower voltage control settings, which also lower energy consumption for most customers without a noticeable difference in service level. Voltage optimization thus provides an effective energy efficiency program. In sum, without AMI, the Company will have fewer program options available to meet the bold energy efficiency targets in the soon-to-be-effective VCEA.

In addition to setting energy efficiency targets, the VCEA amends Va. Code § 56-594 to allow for additional net metering. As Company Witness Frost explained, AMI will simplify the

⁷⁶ 2019 Acts of Assembly ch. 763, Enactment Clauses 3 and 4 (emphasis added).

⁷⁷ Senate Bill 851, House Bill 1526. The enrolled bill was sent to the Governor on March 20, 2020, before the Commission issued its Final Order. Governor Northam signed the VCEA without amendment on April 11, 2020.

⁷⁸ Id.

⁷⁹ Ex. 34 at 7:15-8:11 (Frost Rebuttal); see also Ex. 23 at 40:16-19 (Volkmann) (recommending that the Company conduct targeted energy efficiency and demand response programs).

⁸⁰ Ex. 2, Plan Document at 24.

⁸¹ Ex. 2, Plan Document at 24-25.

⁸² See id.; Ex. 29 at Rebuttal Schedule 6 (Hulsebosch Rebuttal).

net metering interconnection process by enabling remote over-the-air transitioning upon completion of the net metering application process.⁸³ This capability will avoid the need for a field visit, reducing associated expenses and greenhouse gas emissions, and will further facilitate the integration of DERs.⁸⁴ Without AMI, adding additional net metering customers across the system will thus result in increased costs.

Further, the record shows that AMI is foundational to integrated distribution planning and enables a dynamic hosting capacity analysis.⁸⁵ As discussed further below, both the GTSA and the soon-to-be-effective VCEA envision significant build-out of solar resources.⁸⁶ Without the operational data provided by AMI, the Company and customers will have more difficulty integrating increasing amounts of DERs, likely at a greater cost to customers.

Overall, over the past three years, the General Assembly has recognized the value of AMI, and has mandated initiatives that presume AMI will be deployed and available to all customers. Denying AMI, again, as not reasonable and prudent sets the Commonwealth back on these initiatives contrary to legislative goals and mandates, and should be reconsidered.

II. Self-Healing Grid

The Commission considered the proposed investment in a self-healing grid with three related investments: telecommunications; advanced analytics; and an enterprise asset management system.⁸⁷ The Commission denied the proposed Phase IB self-healing grid and

⁸³ Ex. 7 at 22:16-21 (Frost Direct).

⁸⁴ Id. at 22:22-23:4.

⁸⁵ See Ex. 38 at 8, Rebuttal Figure 1 (Wright Rebuttal); Tr. 238:9-14 (Wright); see also Tr. 446:18-21 (Staff Witness Volkmann explaining that hosting capacity analysis "will only get better" with "more and more grid intelligence coming back in.").

⁸⁶ See infra notes 115-117 and accompanying text.

⁸⁷ Final Order at 21.

related investments as not reasonable and prudent because "the self-healing component is not targeted at customers with below average reliability." Accordingly, the Commission found "that the Company has not sufficiently established the need for this level of investment to improve overall system reliability." Respectfully, this decision is contrary to the evidence in the record and also contrary to legislative goals and mandates. The Company thus requests that the Commission reconsider its decision to deny the self-healing grid and associated telecommunications investment. 90

A. The proposed self-healing grid investment targets customers with below average reliability.

The Commission denied the proposed investment in a self-healing grid as not reasonable and prudent because it "is not targeted at customers with below average reliability," and is thus not needed.⁹¹ The Company respectfully disagrees with the premise of this decision.

The Company identified the feeders to target for the self-healing grid based on the largest number of customers and most critical services affected when mainfeeder outages occur using historical outage information from 2014 to 2018.⁹² The record shows that customers on the 23 feeders targeted during Phase IB experience 200 average outage minutes.⁹³ This is 73 minutes more than the system average outage minutes of 127 minutes for all 2.6 million customers, excluding major storms.⁹⁴ The 88,000 customers targeted during Phase IB—including 27 critical

⁸⁸ Final Order at 22.

⁸⁹ Final Order at 22.

⁹⁰ See Ex. 40 (listing telecommunications and cyber security as critical dependencies for the self-healing grid). The Company does not seek reconsideration of the denial of proposed investments in advanced analytics or the enterprise asset management system.

⁹¹ Final Order at 22.

⁹² Ex. 2, Plan Document at 24; Ex. 9 at 8:18-19 (Wright Direct).

⁹³ Ex. 9 at Schedule 2 (Wright Direct).

⁹⁴ Tr. 649:1-3, 9-14 (Wright).

services—experience 57% more outage time annually than the average customer and would see an average of 47 minutes of non-storm outage eliminated.⁹⁵ This represents a 24% improvement in service reliability for these 88,000 customers.⁹⁶ Additionally, to the extent these customers have DERs, they would see an increase in availability of the grid to accept energy generation.⁹⁷

Denying the prudence of investment in the self-healing grid because it does not target customers with below-average reliability is thus contrary to the record and should be reconsidered.

B. The investments proposed during Phase IB will allow the Company to prove the value of a self-healing, digital grid for reliability, for hosting capacity, and for integrated distribution planning.

The proposed Phase IB self-healing grid investments will allow the Company to prove the value of a self-healing grid to reduce outages for customers with below average reliability. Phase IB will also allow the Company to prove the value of the situational awareness that comes with a self-healing grid for applications such as hosting capacity analysis and integrated distribution planning.

A self-healing grid is a distribution network that uses intelligent grid devices (such as switches, reclosers, line sensors), a secure communications network, and a control system to automatically isolate outages and reroute power to restore most customers in a matter of seconds or minutes.⁹⁸ In a recent survey, customers listed as a top priority "technology to help [the

⁹⁵ Ex. 9 at Schedule 2 (Wright Direct); see Tr. 650:20-23 (Wright).

⁹⁶ Ex. 9 at 8:4-9 (Wright Direct); see Ex. 38 at 26:19-27:2 (Wright Rebuttal).

⁹⁷ See Tr. 667:22-668:3 (Wright).

⁹⁸ Ex. 2, Plan Document at 22.

Company] prevent outages and respond to outages faster when they occur."99 The self-healing grid will enable the Company to do just that.¹⁰⁰

In addition to the self-healing functionality, these intelligent grid devices provide real-time data about the grid, enabling the Company to manage grid voltages and power flows while also proactively identifying operational issues and improving maintenance practices.¹⁰¹ The data from these intelligent grid devices enables more advanced and dynamic hosting capacity analysis, as well as advancements in integrated distribution planning.¹⁰² For these reasons, as Dr. Romero Aguero testified, deployment of smart reclosers and switches, as well as implementation of substation and feeder automation, are commonly included in grid modernization plans.¹⁰³

The Company proposed to target 23 mainfeeders for the self-healing grid during Phase IB serving approximately 88,000 customers. As Company Witness Robert S. Wright, Jr., explained, the Company intentionally scaled back the proposed Phase IB self-healing grid investments to a level that will allow the Company to demonstrate the value of the self-healing grid in a smaller population based on feedback from the 2018 GT Plan proceeding. 105

⁹⁹ Ex. 2, Plan Document at 29.

¹⁰⁰ See Ex. Plan Document at 23, Figure 3.

¹⁰¹ Ex. 2, Plan Document at 22; see Ex. 9 at 15:5-16:1 (Wright Direct); see also Tr. 443:13-20 (Volkmann: "[Intelligent grid devices] are able to collect and send back information about voltage, current, et cetera, what's going on on the grid. And that's important for increased awareness of what's happening."). As explained by Company Witness Robert S. Wright, Jr., the majority of proposed costs for the self-healing grid in Phase IB focus on the intelligent grid devices and engineering. Tr. 642:20-644:2 (Wright).

¹⁰² See Ex. 2, Plan Document at 24; Ex. 38 at 8, Rebuttal Figure 1 (Wright Rebuttal).

¹⁰³ Ex. 46 at 7:2-5 (Romero Aguero Rebuttal).

¹⁰⁴ Ex. 9 at 8:5-11 (Wright Direct).

¹⁰⁵ Tr. 248:21-249:10 (Wright).

Essentially, the Company proposed a pilot level of investment in the self-healing grid with a "prove it" mission. 106

Beyond the capability of a self-healing grid to improve reliability, the intelligent grid devices that the Company proposes to install establish a digital grid that provides near real-time situational awareness of grid conditions. The data provided from these intelligent grid devices would improve the integrated distribution planning process leading to decreased DER interconnection costs and to utilization of additional DER functionality, and ultimately allowing the Company and customers to achieve the full benefit of their investments. In the shorter term, this can be accomplished through publicly-available hosting capacity maps, which will provide DER developers and customers a view of the Company's distribution system to determine where there are potential opportunities to connect DERs with reduced interconnection costs. The record shows that data from both intelligent grid devices and AMI is needed for a dynamic, informational hosting capacity analysis. In the longer term, the capability to entertain non-firm connection agreements can also potentially reduce interconnection costs to DER owners. As Company Witness Wright explained, "the idea [is] that data is so powerful and bring it into these big data engines and with the right tools, it's an exponential value add

¹⁰⁶ Tr. 655:6-21 (Wright); see also Tr. 533:6-11 (Baine: "For both the self-healing grid and the mainfeeder hardening, we've reduced that request so that the Company can properly demonstrate the reliability and resiliency improvements that these projects will bring, a pilot type or prove-it program.").

¹⁰⁷ Ex. 2, Plan Document at 22.

¹⁰⁸ Ex. 38 at 8:3-5 (Wright Direct).

¹⁰⁹ Ex. 38 at 8:5-9 (Wright Rebuttal).

¹¹⁰ Tr. 238:9-14 (Wright); see also Tr. 446:18-21 (Staff Witness Volkmann explaining that hosting capacity analysis "will only get better" with "more and more grid intelligence coming back in"). In its Final Order, the Commission approved a basic hosting capacity analysis using information currently available to the Company as reasonable and prudent. Final Order at 16.
111 Ex. 38 at 8:9-11 (Wright Rebuttal).

with these other devices."¹¹² Notably, Staff supported the Company's plans for both hosting capacity analysis and integrated distribution planning.¹¹³

The Company would welcome the opportunity to prove the 47 minutes of outage minutes eliminated for the self-healing grid, as well as the other capabilities that come with a digital grid.¹¹⁴

C. The denial of the self-healing, digital grid is contrary to legislative goals and mandates.

In addition to the reasons for reconsideration of the self-healing grid decision based on the record in this proceeding, denying proposed investment in a self-healing grid and related telecommunications as not reasonable and prudent runs contrary to legislative goals and mandates.

The GTSA established the objective of deploying 5,000 MW of solar and wind resources in the Commonwealth. Additionally, though not yet effective as law, the recently-enacted VCEA, among other things, requires significant build-out of solar resources. Specifically, the VCEA requires Dominion Energy Virginia to seek approval of 16,100 MW of solar or onshore wind by 2035.

¹¹² Tr. 253:25-254:3 (Wright).

¹¹³ Tr. 451:13-18 (Volkmann: "I applaud what the Company intends to do in Phase IB when it comes to Integrated Distribution Planning and the development of an initial hosting capacity analysis, there's a lot of work associated with that, and I fully support it."). Indeed, Appalachian Voice has shown support for integrated distribution planning. See Tr. 381:25-382:10 (O'Donnell).

¹¹⁴ Tr. 655:6-21 (Wright); see also Tr. 533:6-11 (Baine: "For both the self-healing grid and the mainfeeder hardening, we've reduced that request so that the Company can properly demonstrate the reliability and resiliency improvements that these projects will bring, a pilot type or prove-it program.").

¹¹⁵ See Va. Code §§ 56-585.1 A 6; 56-585.1:4.

¹¹⁶ See Senate Bill 851, House Bill 1526.

¹¹⁷ Id.

Much of the 5,000 MW encouraged through the GTSA—and much of the 16,100 MW mandated through the VCEA—would likely be connected to the distribution grid. Historically, approximately half of all DERs connected to the Company's system are on the distribution grid. Indeed, of the VCEA-required 16,100 MW, at least 1,100 MW must be small-scale solar, defined as less than 3 MW, which would certainly connect to the distribution grid. The situational awareness enabled by a self-healing, digital grid would prove invaluable to siting, interconnecting, and managing this significant level of renewable resources where it makes the most sense in terms of costs and benefits. Paired with other future investments, a self-healing, digital grid also allows the Company to fully leverage the capabilities of DERs for grid support, enabling customers to achieve the full benefit of their investment. Without a digital grid, the Company and customers will have more difficulty meeting the requirements of the VCEA, and likely at a greater cost to customers.

The General Assembly has set the Commonwealth on a course toward clean energy, making situational awareness across the distribution grid vitally important. Denying the self-healing grid and related telecommunications as not reasonable and prudent undermines these

¹¹⁸ See Tr. 664:15-18 (Wright: "As a point of reference, currently about half of the DER that's connected to the [Company's] system is on the distribution system.").

¹¹⁹ Senate Bill 851, House Bill 1526.

¹²⁰ See Tr. 729:2-8 (Romero Aguero: "I think that the investments that the Company... is proposing, address an important component of interconnection of distributed resources. I think that the interconnection of distributed resources would be seamless if you put in place the plan proposed by the Company. Or largely seamless, at least."); see also Tr. 449:5-16 (Staff Witness Volkmann explaining that dynamic hosting capacity is needed with high penetration of DERs); Tr. 453:9-13 (Volkmann: "I believe the more and more awareness that distribution operators have about what's happening out there, where there might be reverse current flow, et cetera, is helpful in this new world.").

¹²¹ See Ex. 9 at 11:21-12:6 (Wright Direct).

initiatives and sets the Commonwealth back on achieving its clearly-stated clean energy goals contrary to legislative goals and mandates, and should be reconsidered.

III. Proactive Service Transformer Replacements

The Commission denied the proposed investment in proactive component upgrades as not reasonable and prudent. 122 The proactive component upgrade program consisted of two initiatives: (i) proactively upgrading substation transformers with poor health scores and (ii) proactively upgrading service transformers identified by AMI as either being overloaded or not providing appropriate voltage levels. 123 The Commission denied the proposed Phase IB investment in the proactive service transformer replacement because "the service transformer-related component is depending on AMI meters, which the Commission does not approve." 124 If the Commission reconsiders its decision and approves the deployment of AMI as reasonable and prudent, the Company also requests that the Commission reconsider its decision on proactive service transformer replacements. 125 Proactive service transformer replacements represent approximately \$10.3 million of the proposed \$29.9 million in capital that the Company proposed for the proactive component upgrade program in Phase IB. 126

During Phase IB, the Company proposes to use interval data from AMI to identify service transformers that need to be upgraded due to load or voltage.¹²⁷ In the Company's existing AMI footprint, interval data from AMI revealed that approximately 5.5% of the

¹²² Final Order at 20.

¹²³ Ex. 9 at 29:10-13 (Wright Direct).

¹²⁴ Final Order at 20.

¹²⁵ The Company does not seek reconsideration of the denial of proposed investments in proactive upgrades of substation transformers or the associated monitoring.

¹²⁶ Ex. 9 at Schedule 1 (Wright Direct).

¹²⁷ *Id.* at 31:9-10.

associated service transformers were loaded beyond 130% of nameplate.¹²⁸ Additionally, approximately 2.25 transformer upgrade projects were needed based on voltage information for every 1,000 new smart meters installed.¹²⁹ Replacing these service transformers proactively using data obtained from AMI would eliminate unplanned customer outages that typically occur during peak loading conditions (*i.e.*, the coldest and hottest days of the year).¹³⁰ The Company thus requests reconsideration of the denial of proposed investment in proactive service transformer replacement because such investment leverages AMI—thus maximizing the benefits of AMI.

REQUEST FOR CLARIFICATION

Dominion Energy Virginia petitions for reconsideration to request clarification of Footnote 20. Dominion Energy Virginia also requests limited clarification related to its Smart Charging Infrastructure Pilot Program and the Promotional Allowance Rules.

I. AMI: Footnote 20

In Footnote 20 of the Final Order, the Commission discussed when the Company could propose system-wide TOU rates:

A comprehensive proposal to offer TOU and related rate designs to all of [the Company's] customers—either as a voluntary (opt-in) or as the default (opt-out) tariff—could be accomplished in conjunction with a base rate case in which rate design issues can be comprehensively addressed. Under current statutes, however, it is unclear when [the Company] would be required to submit to a full base rate case. An earnings review is scheduled for 2021; however, it is not known at this time whether that earnings review will require a full base rate case. There is also an opportunity during a Triennial Review for revenue neutral changes to rate design in the absence of

¹²⁸ Id. at 31:10-19.

¹²⁹ *Id.* at 32:3-11.

¹³⁰ Id. at 32:14-18.

a full base rate case, but such rate design would be limited to a revenue neutral TOU proposal.¹³¹

Footnote 20 seems to suggest that the Company could only seek approval of a system-wide TOU rate either (i) as part of a "full base rate case," or (ii) as part of a triennial review if the proposal was revenue neutral. The Company seeks clarity on this interpretation of the Va. Code.

The Company interprets the Code as permitting new, voluntary rate schedules today. The Commission can approve new, voluntary, system-wide rate schedules under Va. Code § 56-234 A.¹³³ The Commission can also approve new, voluntary, experimental rate schedules under Va. Code § 56-234 B.¹³⁴ Once established, the Commission cannot approve a change to the rate itself at this time, ¹³⁵ but it can modify the terms of the rate schedule. ¹³⁶

The Code only prohibits changes to *existing* tariff rates until the conclusion of the first triennial review, other than rate adjustment clauses and the fuel factor:

[N]o adjustment to an investor-owned incumbent electric utility's existing tariff rates... shall be made between the beginning of the Transitional Rate Period and the conclusion of the first review after the conclusion of the Transitional Rate Period, except as may be provided pursuant to § 56-245 or 56-249.6 or subdivisions A 4, 5, or 6 of § 56-585.1.¹³⁷

¹³¹ Final Order 8 n.20.

¹³² To the extent required to provide the requested clarification, the Company seeks to understand the meaning of the term "full base rate case" as used in the Final Order and how that differs from the triennial review structure set forth in Va. Code § 56-585.1.

¹³³ See, e.g., Application of Virginia Electric and Power Company, For approval of a voluntary renewable energy rate, designated Rider REC, pursuant to § 56-234 A of the Code of Virginia, Case No. PUR-2019-00081, Order Approving Tariff (Oct. 31, 2019).

¹³⁴ See, e.g., Application of Virginia Electric and Power Company, For approval to establish experimental companion tariff, designated Schedule RF, pursuant to § 56-234 B of the Code of Virginia, Case No. PUR-2017-00137, Order Approving Tariff (Mar. 26, 2018).

135 Va. Code § 56-585.1:1 A.

¹³⁶ See, e.g., Application of Virginia Electric and Power Company, For approval to modify experimental companion tariff, designated Schedule RF, pursuant to § 56-234 B of the Code of Virginia, Case No. PUR-2019-00016, Order Approving Tariff (Jul. 22, 2019).

137 Va. Code § 56-585.1:1 A (emphasis added).

In other words, changes to the Company's existing tariff rates—Rate Schedule 1 for residential customers—cannot potentially occur until the conclusion of the first triennial review in late 2021. After the conclusion of the first triennial review, this statutory language will no longer apply.

Footnote 20 also suggests that the Company can only make rate design changes in a triennial review if the proposed changes are revenue neutral: "There is also an opportunity during a Triennial Review for revenue neutral rate design in the absence of a full base rate case, but such rate design would be limited to a revenue neutral TOU proposal." As an initial matter, the Company anticipates that any tariff changes associated with a TOU rate would be revenue neutral, like TOU Schedule 1G. Nevertheless, Va. Code § 56-585.1 A 3 states that "[i]n a triennial filing under this subdivision that does not result in an overall rate change a utility may propose an adjustment to one or more tariffs that are revenue neutral to the utility." The Company interprets this provision as allowing for revenue neutral tariff rate changes, but not prohibiting tariff rate changes that are not revenue neutral. The statute does not say that the Company "may only" propose revenue neutral changes, but simply makes clear that the Company "may" propose such changes.

In sum, the Company interprets the Code as permitting new, voluntary TOU rate schedules both today and in the future. A triennial review in 2021 or thereafter is a logical—but not mandatory—forum to address comprehensive changes in rate design, including proposals for

¹³⁸ Final Order at 8 n.20.

¹³⁹ Ex. 12 at 9:17-18 (Morgan Direct); see Tr. 269:17-24 (Morgan).

¹⁴⁰ Va. Code § 56-585.1 A 3 (emphasis added).

¹⁴¹ Appalachian Power Co. v. State Corp. Comm'n, 284 Va. 695, 706, 733 S.E.2d 250, 256 (2012) ("In any case involving statutory construction we begin with the language of the statute . . . When a statute is unambiguous, we must apply the plain meaning of that language.").

TOU rates (whether voluntary or default in nature). Such rates are envisioned to be revenue neutral in design, but an overall rate change in a triennial review is not a legal prerequisite to the Commission considering and approving a TOU rate offering. The Company seeks clarity on Footnote 20 to the extent it conflicts with this interpretation.

II. Smart Charging Infrastructure Pilot Program: Promotional Allowance Rules

In the Final Order, the Commission approved the Smart Charging Infrastructure Pilot Program as reasonable and prudent.¹⁴² The Pilot Program consists, in part, of (i) rebates for the infrastructure and upgrades at electric vehicle ("EV") charging sites, and (ii) rebates for the smart charging equipment that enables managed charging.¹⁴³

Effective since 1992, the Promotional Allowance Rules (the "Rules") "establish the conditions under which electric and gas utilities operating in Virginia may propose to recover reasonable costs associated with promotional allowances to customers." The Rules define a promotional allowance as "any payment, subsidy or allowance, directly or indirectly, or through a third party, to influence the installation, sale, purchase, or use of any appliance or equipment." The Rules permit certain activities, including those "designed to achieve energy conservation, load reduction, or improved energy efficiency," subject to prior Commission approval. Promotional Allowance Rule 50 allows for "exemptions from any or all of these rules." 147

¹⁴² Final Order at 14.

¹⁴³ Final Order at 13; see Ex. 7 at 35:19-22 (Frost Direct).

¹⁴⁴ 20 VAC 5-303-10.

¹⁴⁵ 20 VAC 5-303-20.

¹⁴⁶ 20 VAC 5-303-30.

¹⁴⁷ 20 VAC 5-303-50.

In its Petition, the Company noted that, arguably, the rebates proposed as part of the Pilot Program meet the criteria set forth in the Promotional Allowance Rules.¹⁴⁸ Smart charging infrastructure provides the Company with the opportunity to manage the increased demand from electric vehicles in a manner that can shift this new load from times of peak demand, ultimately reducing peak load.¹⁴⁹ In addition, the proposed rebates serve the overall public interest by providing incentives for the electrification of transportation.¹⁵⁰ Indeed, by statute, projects focused on "electrical facilities and infrastructure necessary to support electric vehicle charging systems" are in the public interest.¹⁵¹

If deemed necessary by the Commission, however, the Company sought a waiver of the Promotional Allowance Rules for the rebates provided through the Pilot Program under Rule 50.¹⁵² As the Company explained, the Promotional Allowance Rules long predate the proliferation of electric vehicles, so the Rules do not contemplate the relative benefits of EVs.¹⁵³ In addition, as discussed above, rebates for incentives for smart charging infrastructure are in the public interest.¹⁵⁴ The proposed rebates will have no effect on other public utilities.¹⁵⁵ Finally, neither Staff nor respondents challenged the Company's request for waiver of the Promotional Allowance Rules as needed.

¹⁴⁸ Ex. 2, Petition at 8.

¹⁴⁹ Ex. 7 at 39:14-16 (Frost Direct); see 20 VAC 5-303-30(2) (permitting approved promotional allowance programs "designed to achieve . . . load reduction").

¹⁵⁰ Ex. 7 at 39:11-12 (Frost Direct); see 20 VAC 5-303-40(1)(e) (requiring utilities to show that a promotional allowance program "serves the overall public interest").

¹⁵¹ See Va. Code § 56-576 (including electric vehicle charging infrastructure in the definition of "electric distribution grid transformation projects"); see also Va. Code § 56-585.1 A 6 (declaring that "[e]lectric distribution grid transformation projects are in the public interest.").

¹⁵² Ex. 2, Petition at 8-9 (citing 20 VAC 5-303-50).

¹⁵³ *Id.* at 9.

¹⁵⁴ See Final Order at 6 n.14.

¹⁵⁵ Ex. 2, Petition at 9.

For these reasons, the Company petitions for reconsideration for the purpose of clarifying that the Commission either (i) approves the rebates in the Pilot Program under the Promotional Allowance Rules, or (ii) grants a waiver of the Promotional Allowance Rules for the Pilot Program.

CONCLUSION

Dominion Energy Virginia respectfully petitions the Commission for reconsideration of the Final Order as it relates to AMI; the self-healing grid and related telecommunications; and proactive service transformer replacements. The justification for denying AMI and the self-healing grid as not reasonable and prudent is contrary to the evidence in the record and contrary to legislative goals and mandates. The Company seeks reconsideration of the proposed proactive replacement of service transformers should the Commission grant reconsideration of its decision on AMI, as investments in the proactive replacements of service transformers based on data received from AMI will enable the Company to maximize the benefit of AMI.

WHEREFORE, Dominion Energy Virginia respectfully requests reconsideration of the Final Order as to (i) AMI; (ii) the self-healing grid, including related telecommunications; and (iii) proactive service transformer replacements. If the Commission reconsiders its decision and approves the deployment of AMI as reasonable and prudent, the Company asks that the Commission also approve the proposed opt-out fees, directing the Company to file a revised Section X of its Terms and Conditions. Dominion Energy Virginia also requests clarification of Footnote 20. Finally, Dominion Energy Virginia requests clarification that the Commission either (i) approves the rebates in the Smart Charging Infrastructure Pilot Program under the Promotional Allowance Rules, or (ii) grants a waiver of the Promotional Allowance Rules for the Pilot Program.

Respectfully submitted by:

VIRGINIA ELECTRIC AND POWER COMPANY

Ву:	/s/_Vish	wa B. Link	
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Counsel for Virginia Electric and Power Company

April 14, 2020

Modeling Assumptions for Advanced Rate Programs

	Time-Varying Rates	ing Rates		
	Experimental	Expanded ¹	PTR	Prepay
Capital Deployment (yr)	2020	-	2026	2025-2026
Enrollment Timeframe (yr)	2020-2024	2025-2034	2026-2034	2026-2034
Steady-State Enrollment %	•	9.3%	20.5%	2.0%
Steady-State Enrollment # 2	2,000	250,000	469,006	20,000
Energy Reduction %	2.5%	%	2.5%	12.0%
Energy Shift %	6.5%	%	14%	-
Demand Reduction %	%5'9	%	14%	0.5%
Peak Load Reduction (MW)	MW9	WI.	150MW	IMW
Supporting Attachment	ER Set 2-1(K)	2-1(K)	ER Set 2-1(L)	ER Set 2-1(M)

Attributable Benefits Checklist:

שניווסמים חבוולו בווכניוולו			
Avoided/Deferred Capex	×	×	×
O&M Savings			
Energy & Demand Reduction	×	×	×
Improved Reliability			
Bad Debt & Energy Diversion			×

 1 Dependent upon completion of AMI & CIP 2 100% of TOU participants dual-enroll in PTR for the purposes of modeling

Company Exhibit No. 29 Witness: TGH Rebutlal Schedule 6 Page 1 of 1

Benefit	Amount (PV - Asset Life)	Basis / Justification
Avoided AMR Equipment Upgrade/Replacement	\$ 3,132,836	Planned spend that is avoided
Avoided AMR Meter Replacement	896'801'69	Avoidance of capital spend that would have been required in the future for the ongoing replacement of AMR meters were they to remain in service
Reduction in Meter Reading Expense	\$ 110,680,179	such and relative to the forms
Reduction in Meter Servicing Expense	\$ 50,934,339	הישואל מויט אינויים מישואל אינויים אינו
Reduction in 'Found-on' Operations Expense	\$ 12,942,432	Conneison of manufactions in footpaint
Reduction in Meter Re-Reads	991,161	Expansion of testing carried as a coupling
Billing Process Improvements	\$ 3,155,455	4 chiel mark reduction based on improvements to meter reads from AMI
Reduction in Customer Calls	13,411,895	שמוני ומתאפתות משכת מו שולני מינים ומתאפתות מתחים שמים ו מניים
Energy Reduction from AMI Usage Data	3,963,322	
Bad Debt Reduction	\$ 62,734,133	Industry handhante recession and chidios
Energy Diversion Reduction	\$ 55,692,675	חתנסת לפנות שום על הפלש כול שום פנתונים
Meter Accuracy Improvement	\$ 8,843,823	
Avoided T&D Upgrade Investment (Time-Varying Rates)	\$ 7,588,370	
Avoided T&D Upgrade Investment (PTR)	\$ 17,251,172	Reduction of future actual actual accet costs based on load mitigation projections
Avoided T&D Upgrade Investment (Prepay)	\$ 108,532	ייים ביים של היים ביים היים היים היים היים היים היים
Avoided T&D Upgrade Investment (Voltage Optimization)	\$ 12,291,138	
CSR Savings (Prepay)	\$ 359,638	Industry benchmarks and projected reduced call volumes
Avoided Energy Cost (Time-Varying Rates)	\$ 4,305,075	
Avoided Demand Cost (Time-Varying Rates)	13,914,707	
Avoided Energy Cost (Opt-In) (PTR)	\$ 306,572	Industry hand marks and historical Company adoption rates
Avoided Demand Cost (Opt-In) (PTR)	\$ 51,814,657	marsary bedecining to the instances company acoptain rates
Avoided Energy Cost (Prepay)	\$ 11,937,319	
Avoided Demand Cost (Prepay)	3,714,052	
Energy Reduction (Voltage Optimization)	111,684,925	11,684,925 Industry benchmarks, research, and studies
Demand Reduction (Voltage Optimization)	\$ 36,527,353	Industry benchmarks, research, and studies
Residential Reliability Benefits (OMS)	\$ 900,505	
Small C&I Reliability Benefits (OMS)	_ 1	Company operational data based on engineering and analaysis
Large C&I Reliability Benefits (OMS)	15,896,251	
Reduction of Uncollectible (Prepay)	\$ 405,240	405,240 Industry benchmarks, research, and studies

CERTIFICATE OF SERVICE

I hereby certify that on this 14th day of April 2020, a true and accurate copy of the foregoing filed in Case No. PUR-2019-00154 was hand delivered, electronically mailed, and/or mailed first class postage pre-paid to the following:

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